

## TWO NEW SPIDERS OF THE GENUS *DOLICHOCYBAEUS* FROM JAPAN

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### *Dolichocybaeus shinkaii* n. sp.

(Japanese name: Shinkai-zunagagumo)

(fig. 4)

Loc. and date:- Mt. Takao, Tokyo-to. Mar. 15, 1968. 1 adult female and 3 immature females

Collector:- Eiichi Shinkai

Female: Total length 4.2mm. Cephalothorax, length 2.0mm., width 1.47mm. Abdomen, length 2.73mm., width 1.73mm. Leg I 6.16mm. ( $1.72+0.66+1.50+1.33+0.96$ ). Leg II 5.68mm. ( $1.67+0.66+1.33+1.30+0.72$ ). Leg III 5.06mm. ( $1.43+0.60+1.03+1.23+0.77$ ). Leg IV 6.61mm. ( $1.83+0.60+1.48+1.73+0.97$ ). Eyes: Ratio of major diameter, AME:ALE:PME:PLE=3.1:6.8:6.3:6.0. Ratio of interval, AME-AME=3.0, AME-ALE=2.2, PME-PME=6.0, PME-PLE=4.6, ALE-PLE=3.0. Clypeus=9.6. Anterior row of eyes is weakly recurved and posterior row of eyes straight as seen from above. Both rows are procurved as seen from front.

Ocular area is broader than long 36:17.5 in ratio, and about four-fifths as wide as carapace at that level.

Cephalothorax dull yellowish brown in ground color and the cephalic part with a pair of bluish black bands. Cephalic suture and radiating grooves are bluish black. Abdomen bluish black in ground color with two pairs of pale spots on its dorsum and is succeeded by two chevrons and two uneven spots. Cardiac area with no pattern. Labium brown, tip white and procurved. Maxillae are brown, tip white. Sternum brownish yellow, chelicerae dull brown. Legs are annulated. Hairs are black.

Labium is broader than long 19:14 in ratio and its tip procurved. Maxillae longer than broad and inclined. Anterior margin of the sternum is straight and its hind part extending into 4th coxae. The outer margin of the fang furrow with three teeth. Middle one is largest. The inner margin with five proximal denticles and five teeth of which distal one is rather small. Colulus is degenerated into two groups of three setae. Legs: The order of length 4123. Tibia I is longer

than the metatarsus I. Tarsus IV with six tricobothria. Tibia I has PVS<sub>1</sub>, PVS<sub>2</sub>, PVS<sub>3</sub>, PVS<sub>4</sub>, PLS<sub>1</sub>, PLS<sub>3</sub>, PLS<sub>4</sub> and RVS<sub>1</sub>, RVS<sub>2</sub>, RVS<sub>3</sub>, RVS<sub>4</sub>. Metatarsus I has PVS<sub>1</sub>, PVS<sub>2</sub>, PVS<sub>3</sub>, PLS<sub>2</sub>, PLS<sub>4</sub>, RVS<sub>1</sub>, RVS<sub>2</sub>, RVS<sub>3</sub> and RLS. Tibia II has PVS<sub>1</sub>, PVS<sub>2</sub>, PVS<sub>3</sub>, PLS<sub>1</sub>, PLS<sub>2</sub>, PLS<sub>3</sub>, PLS<sub>4</sub> and RVS<sub>1</sub>, RVS<sub>2</sub>, RVS<sub>3</sub>. Metatarsus II has PVS<sub>1</sub>, PVS<sub>2</sub>, PVS<sub>3</sub>, PLS<sub>1</sub>, PLS<sub>2</sub>, PLS<sub>3</sub>, PLS<sub>4</sub>, RVS<sub>1</sub>, RVS<sub>2</sub>, RVS<sub>3</sub>, RLS and VS.<sup>3)</sup>

Genitalia (fig. 4) is *Dolichocybaeus* type. Rather allied to that of *Dolichocybaeus kirigaminensis* Komatsu, 1967. But posterior part of the 2nd spermatheca is prolonged. The other main differences between these two species may be tables thus:

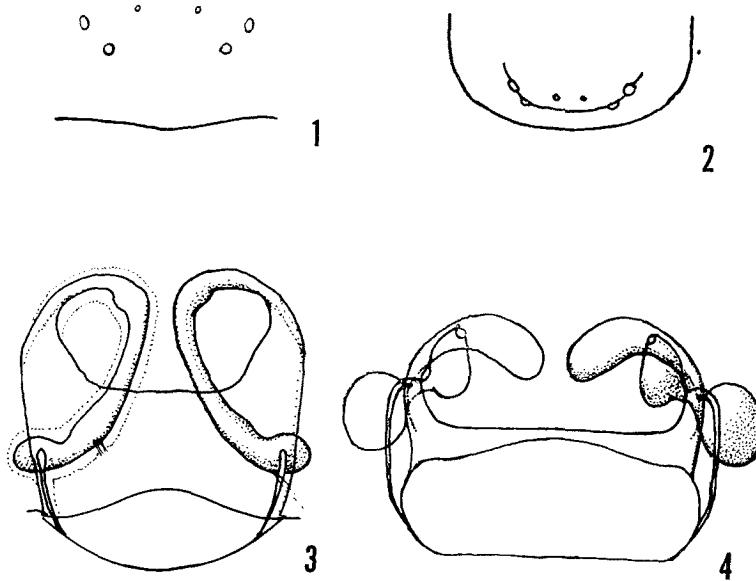


Fig. 1-3. *Dolichocybaeus takasawaensis* n. sp. ♀

Fig. 1. Eyes as seen from front

Fig. 2. Eyes as seen from above

Fig. 3. Genitalia as seen from below

Fig. 4. *Dolichocybaeus shinkaii*, n. sp. ♀ genitalia as seen from below

<i>D. kirigaminensis</i>	<i>D. shinkaii</i>
PLE is largest.	ALE is largest.
Anterior row of eyes recurved.	Anterior row of eyes procurved.
Posterior row of eyes straight.	Posterior row of eyes recurved.
PME-PME < 1 PME-PLE	PME-PME > 1 PME-PLE
$\frac{\text{Tibia I}}{\text{Metatarsus I}} > 1$	$\frac{\text{Tibia I}}{\text{Metatarsus I}} < 1$
Metatarsus I with VS, PLS1 and PLS3.	Metatarsus I lacking these spines.

*Dolichocybaeus takasawaensis* n. sp.

(Japanese name: Takasawa-zunagagumo)

(fig. 1-3)

Loc. and date:- Takasawa-dō cave, Konose, Kuma-mura, Kumamoto Prefecture.  
May 4, 1969. 1 adult female, 1 immature female

Collector:- Teruo Irie

Female: Total length 4.73mm. Cephalothorax, length 2.23mm., width 1.57mm. Abdomen, length 2.50mm., width 1.73mm. Leg I 7.43mm. (2.00+0.73+1.80+1.63+1.27). Leg II 7.19mm. (1.97+0.73+1.63+1.63+1.23). Leg III 6.31mm. (1.67+0.68+1.30+1.53+1.13). Leg IV 7.90mm. (2.00+0.70+1.80+2.07+1.33) Palp 3.00mm. (0.97+0.40+0.53+1.10). Eyes: Anterior median eyes lacking. Other eyes are rather vestigial and with no black pigments. (Author has another specimen which is immature female of this genus is lacking the all eyes.) Ratio of major diameter, ALE:PME:PLE=2:1:3. Ratio of interval, ALE-ALE=18, PME-PME=9.5, PME-PLE=8, ALE-PLE=4. Clypeus 12. Ocular area is much broader than long 30:8 in ratio, and about one-second as wide as carapace at that level. Posterior row of eyes is weakly procurved as seen from front and recurved as seen from above.

Cephalothorax yellowish brown. Cephalic part darker and both sides are parallel. Thoracic part with radiating grooves and a longitudinal median furrow which is black in color. From the ocular area to the furrow there is some hairs arranged in three lines. Chelicerae brown. Outer margin of the furrow with three teeth, middle one is largest. Inner margin with four teeth and four proximal denticles. Maxillae and labium brown, tips white. Maxillae longer than broad, somewhat incline towards each other. Labium wider than long 11:19 in

ratio and tip procurved. Sternum longer than broad 32:29 in ratio and posterior part extends into the 4th coxae. Interval of the 4th coxae is more than a half of the width of the 4th coxa, 8:13 in ratio. Palp: The tarsal claw with seven teeth. Legs: The order of length 4123. Limuli of the 3rd and the 4th legs are broadly truncated. Tibia I is longer than the metatarsus I. Paird claw of the 1st leg with ten teeth and the 4th leg with seven teeth. All median claws with two teeth. Tarsus IV with six trichobothria. Legs and palp light brown, spines black, hairs grey. Tibia I has PVS1, PVS2, PVS3, PVS4, PLS3, PLS4 and RVS1, RVS2, RVS3, RVS4. Tibia II has PVS1, PVS2, PVS3, PLS2, PLS3 and RVS1, RVS2, RVS3, RVS4. Metatarsus I has PVS1, PVS2, PVS3, PLS2 and RVS1, RVS2, RVS3 and RLS, VS. Metatarsus II has PVS1, PVS2, PVS3, PLS2, PLS3, PLS4 and RVS1, RVS2, RVS3, VS.<sup>4)</sup>

Abdomen: Longer than broad, oval in shape, covered sparingly, with rather long grey hairs. Colulus represented by a pair of three setae. Anterior spinnerets contiguous. Posterior spinnerets located behind of the anteriors and are slender, and second segments are not recognizable. Genitalia (fig. 3) is *Dolichocybaeus* type. 2nd spermatheca is located at the posterior side of the 1st spermatheca. 2nd and 3rd spermathecae are arranged tranversely and make a L letter in shape. Rather resembles *D. nichikoensis* Komatsu, 1968. But entrances of the anterior ducts are wide and deep. Posterior ducts starts from ventral parts of the 3rd spermathecae. The other main differences between these two species may be tabled thus:

<i>D. nichikoensis</i>	<i>D. takasawaensis</i>
AME are present.	AME are lacking.
Width of the ocular area is more than twice the length.	Width of the ocular area is more than three times the length.
Posterior spinnerets located rather outside of the anteriors.	Posterior spinnerets located just behind of the anteriors.
Posterior row of eyes procurved.	Posterior row of eyes recurved.
Inner margin of the fang furrow with 5 teeth.	Inner margin of the fang furrow with 4 teeth.

3), 4) T. Komatsu 1968: "Explanation of the spines of 1st and 2nd legs". Cave spiders of Japan II, *Cybaeus*, *Dolichocybaeus* and *Heterocybaeus* (*Cybaeinae*), p. 24.